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EXAMINER

PHAN, THANH S

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 01/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/658,198

Applicant(s)

HAMA ET AL.

Examiner

Thanh S Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-26 is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Stickney et al. (U.S Pat # 4,754,101).

Regarding claim 1. Stickney et al. discloses an electromagnetic shielding plate for shielding electromagnetic radiation by covering at least a part of the object comprising: a covering plate formed of a conductive plate (reference 14); and a plurality of connecting strips provided along the edge of said covering plate (reference 18); wherein each of the connecting strips is bent so that the tip portion thereof projects from a surface of the covering plate (Figure 1).

Regarding claim 2. Stickney et al. discloses an electromagnetic shielding plate according to Claim 1, further comprising a supporting portion for establishing a space between said electromagnetic shielding plate and said object (vertical portion of 16).

Regarding claim 3. Stickney et al. discloses an electromagnetic shielding plate according to Claim 2, wherein said supporting portion comprises a connecting portion for connecting said electromagnetic shielding plate with said object (reference 18).

Regarding claim 5. Stickney et al. discloses an electromagnetic shielding plate according to Claim 2, wherein said connecting strips projecting from said covering plate are higher than said supporting portion (Figure 3).

Regarding claim 17. Stickney et al. discloses an electromagnetic shielding plate for shielding electromagnetic radiation by covering at least a part of the object comprising: a box-shaped structure having a plate portion (reference 14) and a side surface portion provided around said plate portion (reference 16); wherein notches extending from the edge of said side surface portion to a part of said plate portion are provided at a plurality of locations along the edge of said side surface portion (reference 32).

Regarding claim 18. Stickney et al. discloses an electromagnetic shielding plate according to Claim 17, wherein said side surface portion is divided into portions by said notches, and said respective portions are supported by the plate portion with the respective tips being displaceable (Figures 1-3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 6, 7, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stickney et al.

Regarding claim 16. Stickney et al. discloses an electromagnetic shielding plate according to Claim 1 except for wherein said covering plate and said connecting strip are integrally formed. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to integrally formed the covering plate and the connecting strip, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U. S. 164 (1893).

Regarding claim 4. Stickney et al. discloses an electromagnetic shielding plate according to Claim 3 except for wherein said covering plate and said connecting strip are integrally formed. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to integrally formed the covering plate and the connecting strip, since it has been held that forming in one piece an article which has

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formerly been formed in two pieces and put together involves only routine skill in the art.

Howard v. Detroit Stove Works, 150 U. S. 164 (1893).

Regarding claim 6. Stickney et al. discloses an electromagnetic shielding plate according to Claim 5 except for wherein said covering plate and said connecting strip are integrally formed. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to integrally formed the covering plate and the connecting strip, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U. S. 164 (1893).

Regarding claim 7. Stickney et al. discloses an electromagnetic shielding plate according to Claim 2, wherein said covering plate and said connecting strip are integrally formed. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to integrally formed the covering plate and the connecting strip, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U. S. 164 (1893).

Claims 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stickney et al. as applied to claim 1 above, and further in view of Hood, III et al. (U.S. Pat 6,049,469).

Regarding claim 8. Sticknet et al discloses an electromagnetic shielding plate according to Claim 1, wherein said plurality of connecting strips includes a first group of connecting strips, the tips of which are bent toward one surface of said covering plate, but does not disclose a second group of connecting strips, the tips of which are bent toward another surface of said covering plate. Hood, III et al. teaches of conductive fingers (connecting strips) extending on both surfaces of a shielding plate (figure 3). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate Hood, III et al.'s teachings into Stickney et al. for the purpose making electrically contacts with other component such as an enclosure.

Regarding claim 9. Stickney et al. and Hood, III et al. disclose an electromagnetic shielding plate according to Claim 8 except for both surfaces of said covering plate are provided with a supporting portion for establishing a space between said electromagnetic shielding plate and said object respectively. Hood, III et al. further teaches of support portions on both surfaces of the shielding plate (references 115, 119). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate Hood, III et al.'s teachings for the purpose of coupling to difference components.

Regarding claim 10. Stickney et al. and Hood, III et al. disclose an electromagnetic shielding plate according to Claims 9. Stickney et al. teaches wherein said supporting portion comprises a connecting portion for connecting said electromagnetic shielding plate with said object (see claim 3).

Regarding claim 11. Stickney et al. and Hood, III et al. disclose an electromagnetic shielding plate according to Claim 10. Stickney et al. teaches wherein said connecting strips projecting from said covering plate are higher than said supporting portion (see claim 5).

Regarding claim 12. Stickney et al. and Hood, III et al. disclose an electromagnetic shielding plate according to Claims 11 except for wherein said covering plate and said connecting strip are integrally formed. . It would have been obvious to one of ordinary skill in the art at the time of the invention was made to integrally formed the covering plate and the connecting strip, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U. S. 164 (1893).

Regarding claim 13. Stickney et al. and Hood, III et al. disclose an electromagnetic shielding plate according to Claim 8 except for wherein said covering plate and said

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connecting strip are integrally formed. . It would have been obvious to one of ordinary skill in the art at the time of the invention was made to integrally formed the covering plate and the connecting strip, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U. S. 164 (1893).

Regarding claim 14. Stickney et al. and Hood, III et al. disclose an electromagnetic shielding plate according to Claims 9. Sticknet et al. teaches wherein said connecting strips projecting from said covering plate are higher than said supporting portion (see claim 11).

Regarding claim 15. Stickney et al. and Hood, III et al. disclose an electromagnetic shielding plate according to Claim 14, except for wherein said covering plate and said connecting strip are integrally formed. . It would have been obvious to one of ordinary skill in the art at the time of the invention was made to integrally formed the covering plate and the connecting strip, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U. S. 164 (1893).

Allowable Subject Matter

Claims 19-26 allowed.

The following is an examiner's statement of reasons for allowance:

Neither the cited reference or the reference cited discloses or suggests an electromagnetic shielding structure comprising: an object including a circuit element mounted thereon; and an electromagnetic shielding plate for shielding electromagnetic radiation by covering at least a part of said object; said object comprising a band-shaped ground pattern surrounding an area on which electromagnetic shielding is to be provided on a surface where said circuit element is mounted; said electromagnetic shielding plates comprising a covering plate formed of a conductive plate and a plurality of connecting strips provided along the edge of said covering plate; wherein said connecting strips are bent in such a manner that the chip portions thereof project from the surface of said covering plate; and said electromagnetic shielding plate and said object are kept in a positional relationship wherein the tips of said connecting strips are in press contact with said ground pattern.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lilienthal, II et al. (U.S Pat # 6,239,359) discloses a Circuit Board RF Shielding.

Chen (U.S Pat # 6,288,330) discloses a Cover Device Adapted To Provide Electromagnetic Interference Shielding To An Electronic Component That Is Received In A Housing Of An Electrical Appliance.

Davidson et al. (U. S Pat # 6,297,967) discloses a Self-Securing RF Screened Housing.

Kobayashi (U.S Pat # 6,330,167) discloses an Electronic Assembly Within An Electromagnetic Radiation Shielding Cap.

Honeycutt et al. (U.S Pat # 6,320,121) discloses a Radio Frequency Shield Can Cover With Internal Fingers.

Lonka (U.S Pat # 5,365,410) discloses an Electromagnetic Compatibility Enclosure.

Kaiser (U.S Pat # 6,265,659) discloses an Electrically Conductive Housing For An Electrical Device.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh S Phan whose telephone number is 703-305-0069. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 703-308-3121. The fax phone numbers for

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the organization where this application or proceeding is assigned are 703-305-7722 for regular communications and 703-305-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TSP
January 13, 2002



Jayprakash N. Gandhi
Primary Examiner
Technology Center 2800